Mold Compound & Die-Attach Epoxy Material Conversion

XCN05011 (v2.0) August 7, 2006

Product/Process Change Notice

Overview

This notification describes a material set consolidation of mold compound and die-attach epoxy across various packages in all Xilinx device families. The new material set is already used in Xilinx RoHS-compliant products. There is no change to the form, fit, or function of the devices.

Description

To consolidate material sets, Xilinx is changing the package assembly materials at all manufacturing locations for several packages. The mold compound and die-attach epoxy materials are moving to the same material set as used in our RoHS-compliant product. There is no change to the lead plating or solder balls. The new RoHS-compliant material set is halogen-free, meets moisture sensitivity level (MSL) 3 per JEDEC standard J-STD-020C, and meets UL94 V-0 flammability requirements. The change in assembly materials does not affect the fit, form, or function of the devices.

Products Affected

All Xilinx products, including Daisy Chain (XCDAISY) and Mechanical (XCMECH) samples, offered in the packages in Table 1 (except for Q-Grade and Military products) will convert to this RoHS-compliant material set.

Table 1: **Current and New Material Set by Package**

Package Type	Current Material Set		RoHS-Compliant Material Set	
	D/A Epoxy	Mold Compound	D/A Epoxy	Mold Compound
BG 225/256/388/492/575/728	8510	SMT-B1 Series	2300 Series	G770 Series
FG 256/320/324/400/456/ 484/556/676/900/1156	8510	SMT-B1 Series	2300 Series	G770 Series
FT256	QMI596	SMT-B1 Series	2300 Series	G770 Series
CS 144/280	QMI536	SMT-B1 Series	2025 Series	G770 Series
CS 48/CP56/CP132	2300 Series	EME7730	2300 Series (No Change)	G770
PQ 100/160/208/240	8361 Series	MP8000CH4	3230	G700 Series
HQ 160/208/240/304	8361 84-1LMIS Series	MP8000CH4 7304 Series	1076	G700 Series
HT 144/176/280	JMI2500	7320CR	3230	G700 Series
PD8	84-1 LMISR4	6300H	8390A	DMC2000HG
VO 8/20/24	84-1LMI Series	KMC-184 Series	8290 Series	G700 Series
SO 8/20/24	84-1LMI Series	MP8000CH4	8290 Series	G600 Series

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Key Dates

Table 2 lists the date codes showing when product can start shipping with the new material set. Products using the old material set will stop shipping upon inventory depletion.

Table 2: **First Cross-Ship By Package**

Package Type	Date Code
BG 225/256/388/492/575/728	0609
FG 256/320/324/400/456/484/556/676/900/1156	0609
FT256	0601
CS 144/280	0601
CS 48/CP56/CP132	0601
PQ 100/160/208/240	0609
HQ 160/208/240/304	0609
HT 144/176/280	0609
PD8	0609
VO 8/20/24	0609
SO 8/20/24	0609

Traceability

A top mark facilitates package traceability. The Date Code can be found on the package top mark as illustrated in Figure 1.

Figure 1: **Label Showing Date Code**

Recommendation

No action is required by this PCN.

Important Notice: Xilinx Customer Notifications (PCN, PDN, and Quality Alerts) can be delivered via e-mail alerts sent by the MySupport website (http://www.xilinx.com/support). Register today and personalize your "MyAlerts" to include Customer Notifications. This change provides many benefits, including the ability to receive alerts for new and updated information about specific products, as well as alerts for other publications such as data sheets, errata, application notes, and so forth. For instructions on how to sign up, refer to Xilinx Answer Record 18683.

Questions and Additional Information

For additional information or questions, please contact Xilinx Technical Support.

Qualification and technical data associated with this change are available in *Qualification and Technical Data for Mold Compound & Die-Attach Epoxy Material Conversion (RPT014)*, http://www.xilinx.com/bvdocs/reports/rpt014.pdf.

XCN05011 v2.0 - Changes Due to XCN06018

This updated notice (v2.0) is a result of the release of Xilinx Quality Alert, *Bond Lift on Wirebonded Plastic Ball Grid Array (PBGA) Packages (XCN06018)*, http://www.xilinx.com/bvdocs/notifications/xcn06018.pdf.

Due to the technical issues resulting from XCN06018, Xilinx will be moving the packages affected by this Quality Alert to a minor variant of mold compound within the G770 series. The affected packages (FT/FTG256 and FG/FGG400/456/484/676/900/1156) are shown in Table 3. This change will be made in a phased manner, with adoption of the minor variant of mold compound starting with July 2006 and completing by November 2006 for these particular packages.

If you would like assistance regarding the particulars of mold compounds, please contact your Xilinx Sales Representative.

Table 3: **Packages Affected by XCN06018**

Package Type	First Cross-Ship Date Code	Post Quality Alert Cross-Ship Date Code
FG/FGG 400/456/484/556/676/900/1156	0609	(starting) 0629
FT/FTG 256	0601	(starting) 0629

Revision History

The following table shows the revision history for this document.

Date	Version	Revision
8/29/05	1.0	Initial release.
3/11/06	1.1	Added reference to Daisy Chain and Mechanical samples in Products Affected section. Updated Table 1, page 1; removed BG 352/432/560 and FG 680/860 package types, changed the D/A Epoxy value for HQ package, and changed the Mold Compound value for VO package. Updated Table 2, page 2; changed the Date Code for FG 256/320/... package, and removed BG 352/432/560 and FG 680/860 package types.
4/3/06	1.1.1	Update to *Qualification and Technical Data for Mold Compound & Die-Attach Epoxy Material Conversion* (RPT014).
8/7/06	2.0	Added references to mold compound required changes due to the release of Xilinx Quality Alert *Bond Lift on Wirebonded Plastic Ball Grid Array (PBGA) Packages* (XCN06018). Added XCN05011 v2.0 - Changes Due to XCN06018, page 3 and Table 3, page 3.